

CLAIMS

1. An apparatus comprising:
a source of an incident electromagnetic wave;
a first plate of material transparent to the electromagnetic wave; and
5 a layer of phase shift material having defined therethrough a polygonal window with at least six sides.
2. The apparatus according to claim 1, wherein said layer is adapted to define features of a semiconductor device.
- 10 3. The apparatus according to claim 1, wherein said polygonal window is octagonal.
4. The apparatus according to claim 1, wherein said polygonal window has
15 such a number of sides as to form an approximately circular shape.
5. The apparatus according to claim 1, wherein said layer of phase shift material causes a 180° phase shift of the incident electromagnetic wave.
- 20 6. The apparatus according to claim 1, wherein said layer of phase shift material at least partially absorbs the incident electromagnetic wave at the wavelength used.
7. A method of defining contacts on an integrated circuit device using an
25 electromagnetic wave including:
providing an integrated circuit device substrate, a first plate of material transparent to the electromagnetic wave placed over the substrate, and a layer of phase shift material having defined therethrough a polygonal etch window with at least six sides; and
30 directing the electromagnetic wave at the substrate through the layer of phase

shift material and first plate.

8. The method according to claim 7, wherein the layer causes a 180° phase shift of the electromagnetic wave.

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9. The method according to claim 7, wherein the layer partially absorbs the electromagnetic wave.

10. An integrated circuit contact formed by directing an electromagnetic wave at a substrate through a first plate of material transparent to the electromagnetic wave placed over the substrate, and a layer of phase shift material placed over the first plate having defined therethrough a polygonal etch window with at least six sides.

11. The integrated circuit contact according to claim 10, formed by an octagonal window.

12. The integrated circuit contact according to claim 10, formed by a polygonal etch window having such a number of sides as to form an approximately circular shape.

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13. The integrated circuit contact according to claim 12, wherein the layer of phase shift material causes a 180° phase shift of the photoelectric wave.

14. The integrated circuit contact according to claim 10, wherein the layer made of transparent material partially absorbs the photoelectric wave.

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